Argonne NATIONAL LABORATORY

News

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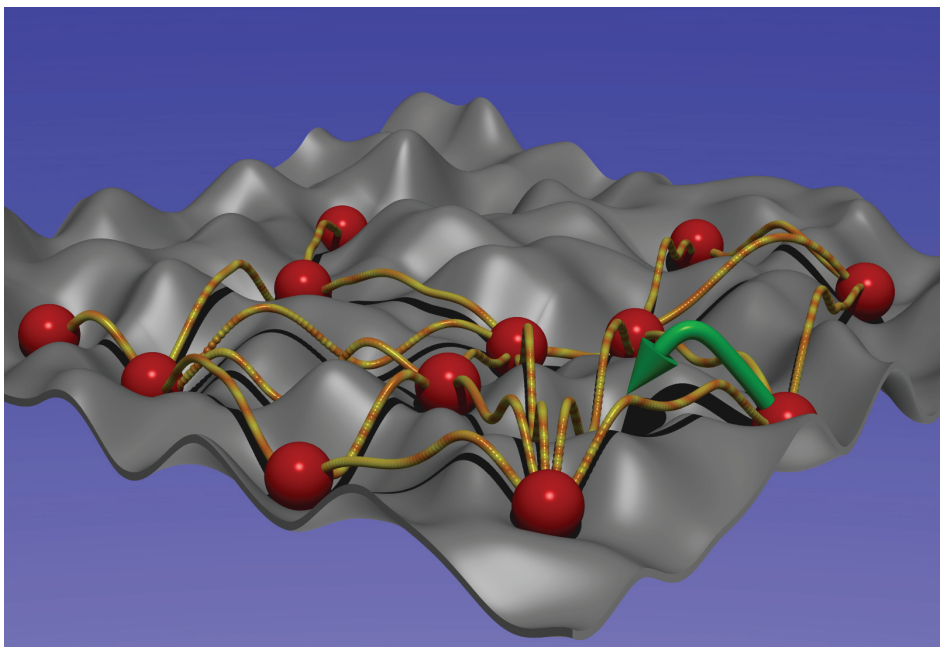


Illustration of a Coulomb glass system: Electrons (red) in a random landscape interact with each other (yellow-orange lines). Noise of the resistance of the system is created by collective "hopping" of the electrons (green arrow).

New '1/f noise' discovery promises to improve semiconductor-based sensors

SYLVIA CARSON

More sensitive sensors and detectors based on semiconductor electronics could result from new findings by researchers from the United States, Norway and Russia.

Their research has yielded a decisive step in identifying the origin of the universal "one-over-f" (1/f) noise phenomenon; "f" stands for "frequency."

"One-over-f noise appears almost everywhere, from electronic devices and fatigue in materials to traffic on roads, the distribution of stars in galaxies and DNA sequences," said Valerii Vinokour (MSD). "Finding the common origin of one-over-f noise in its many forms is one of the grand challenges of materials physics. Our theory establishes the origin and lower limit to one-over-f noise in semiconductor electronics, helping to optimize detectors for commercial application."

Noise is a fluctuation in time, a deviation from the average. Humans and other animals carry a common example in their heartbeats, where 1/f noise can be detected as a deviation from normal pulse. In nanomaterials, such as the tiny circuits in semiconductor electronics, the noise generated by the random motion of a single electron can be devastating, since there are so few electrons in the system.

Vinokour and his team showed that the 1/f noise in doped semiconductors, the platform for all modern electronics, originates in the random distribution of impurities and the mutual interaction of the many electrons surrounding them. These two ingredients — randomness and interaction — trap electrons in the Coulomb glass, a state like window glass where electrons move by hopping from one random location to another. 1/f noise arises from the electrons' hopping motion. After discovering the theoretical connection between 1/f noise and formation of the Coulomb glass, Vinokour and his collaborators confirmed it with large-scale computer simulations; suppression of the interactions was found to remove the Coulomb glass behavior and 1/f noise.

"Our results," Vinokour said, "establish that one-over-f noise is a generic property of Coulomb glasses and, moreover, of a wide class of random interacting systems and phenomena ranging from mechanical properties of real materials and electric properties of electronic devices to fluctuations in the traffic of computer networks and the Internet."

These research findings were published in the May 11 issue of *Physical Review Letters*.

Collaborators on this research were Vinokour and Andreas Glatz, at Argonne, Y.M. Galperin from University of Oslo, Oslo, Norway, and A.F. Ioffe of the Physico-Technical Institute of the Russian Academy of Sciences, St. Petersburg, Russia. ■

Board of Governors to honor 20 employees and 2 children of employees

The UChicago Argonne, LLC Board of Governors for Argonne will honor 20 employees and two children of employees at its 2007 Awards Program Thursday, June 28.

Distinguished Performance Awards, which recognize outstanding scientific or technical achievements, or a distinguished record of achievement of select Argonne employees, will be awarded to:

Michael Borland, Operations Analysis Group leader and senior scientist, Accelerator Systems Division,

Ernst Rehm, senior physicist, Physics Division,

Michael Wang, section leader of Systems Assessment, Center for Transportation Research; and

Linda Young, distinguished fellow, Chemistry Division.

Outstanding Service Awards, the highest honor the university gives to Argonne employees in support positions, will be awarded to:

Dick Konecny, senior engineering specialist, High Energy Physics Division,

Joyce Leggett, ES&H compliance specialist, Environment, Safety and Health and Quality Assurance Division,

Rick Putnam, engineering specialist, Advanced Photon Source Engineering Support Division; and

Cindy Wilkinson, deputy director, Communications and Public Affairs Division.

The university has added a new award to its program, the Pinnacle of Education Award, the first of which will be awarded to Marion Thurnauer, senior scientist (emeritus), Chemistry Division. This award was created to recognize an individual for his or her leadership in science through the Division of Educational Programs.

Each DPA, OSA and Pinnacle of Education Award winner will be presented with an award and a check for $3,500.

The university will also award undergraduate scholarships to The University of Chicago to Vuk Brajuskovic, a graduate of Naperville North High School, and son of Bransilav Brajuskovic of the Advanced Photon Source Division and Tijana Rajh of the Chemistry Division and the Center for Nanoscale Materials; and Ekaterina Koshelev, a graduate of Neuqua Valley High School in Naperville and daughter of Alexei Koshelev of the Materials Science Division and Irina Koshelev of the university's Center for Advanced Radiation Sources at Argonne. The scholarship covers the student's first-year undergraduate tuition and is automatically renewed for the following three years, as long as the recipient remains a full-time student in good academic standing.

Finally, the university will recognize several Argonne employees for their contributions to the proposal effort that succeeded in securing the award of the management contract for Argonne by the U.S. Department of Energy to the university's company, UChicago Argonne, LLC.

The UChicago Argonne, LLC Board of Governors 2007 Awards Program will begin at 2 p.m. in the Building 402 Auditorium. A reception will follow in the lower level gallery. All university, Argonne and U.S. Department of Energy employees whose schedules permit are invited to attend. ■

MORE NEWS AND LATE-BREAKING UPDATES:
INSIDE ARGONNE
www.inside.anl.gov

ARGONNE COMBINED APPEAL UNDER WAY; PLEDGE ONLINE

The electronic system for the May 2007 Argonne Combined Appeal is now available. It is accessible by logging into the Inside Argonne Web page, selecting the "Personal Info" tab, clicking on "My Payroll" and then selecting the Argonne Combined Appeal link on the left-hand side. The renewal system will be available throughout the month of May. Prizes will be given away weekly.

Detailed instructions and more information about the Argonne Combined Appeal are available online.

http://inside.anl.gov/community/aca/pledge_card.html

VOLUNTEERS NEEDED FOR ARGONNE PICNIC

The Argonne Club needs volunteers to assist with the Argonne Picnic on Saturday, July 14, at Argonne Park. The picnic runs from 10 a.m. to 3 p.m. Volunteers are needed to work one-hour time slots between 8 a.m. and 4 p.m.

Volunteers can sign up online. A club can sponsor an activity, or individuals can sign up for as little as an hour. Clubs can also use this opportunity to recruit new members or demonstrate club activities.

Volunteers will receive an embroidered T-shirt.

http://www.argonneclub.anl.gov/picnic/index.php

Argonne, Northwestern seek ANSER to solar energy challenges

HELPING the world meet increasing energy needs through solar energy will be the goal of a new research center established by the Argonne and Northwestern University.

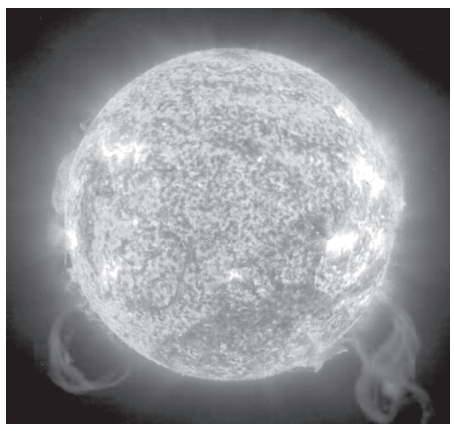
The Argonne-Northwestern Solar Energy Research Center, or ANSER Center, will combine and expand the research interests of both institutions to address the grand scientific challenges posed by the need for economically viable solar energy use.

"Global energy needs will double by 2050 and triple by 2100," said Michael R. Wasielewski, Northwestern chemistry professor and director of the new center. "An increase in the use of solar energy is essential for meeting this need in an environmentally responsible manner."

Researchers at the ANSER Center will come from both Argonne and Northwestern, and will examine new economical ways to use sunlight to produce clean fuels, such as hydrogen, from water and to produce electricity directly from low-cost photovoltaic and thermoelectric systems.

"The scientific challenges to achieving these goals are complex and cross-disciplinary, requiring an integrated systems approach," said George Crabtree, director of Argonne's Materials Science Division and deputy director of the ANSER Center. "Argonne and Northwestern each have a long history of accomplishment in solar energy research, as well as a culture of interactive team approaches to problem solving. Add the world-class complementary expertise and facilities, and the result should be real breakthroughs in understanding fundamental solar energy conversion mechanisms and the ability to dramatically improve the efficiency of converting solar energy to fuels and electricity."

Another goal is to educate a science and engineering workforce able to solve cross-disciplinary energy problems through educational opportunities



available through the collaboration.

Key scientific challenges that will be addressed through the ANSER Center are:

- Coupling light energy to catalysts to produce clean fuel;
- Developing interfaces between different materials to greatly increase the performance of organic photovoltaics;
- Developing nanoscale electrode architectures within solar cells to increase their performance;
- Developing new materials to directly convert solar heat to electricity with high efficiency.

Argonne and Northwestern have other partnerships, including research areas such as superconductivity, nanoscale science and engineering, and materials science. The two institutions also have a 40-year tradition of joint appointments to integrate research.

Initial funding for the ANSER Center comes from support from both institutions. In addition, center members currently receive federal support in the solar energy field. ■

Argonne, Air Force to collaborate on defense technologies, research

CATHERINE FOSTER

OFFICIALS from Argonne and the Air Force Research Laboratory signed an agreement May 14 that promises to speed the delivery of technological advances to American military forces while saving taxpayer dollars.

The memorandum of understanding will promote a cooperative exchange of technical requirements, science and technology information and result in leveraged program development between the two labs. Officials expect the agreement to improve the cost, schedule and performance goals associated with developing critical technologies for the nation through the coordination of related efforts and information exchanges.

The new relationship between Argonne and the Air Force Research Laboratory (AFRL) will provide an opportunity to establish a common and consistent path into the respective technology bases of each facility. "Argonne and AFRL can access each other's technologies and capabilities to meet our nation's needs," said Sandra Biedron, director of Argonne's Department of Defense Project Office.

Also as part of the agreement, AFRL scientists will have access to Argonne's world-class research facilities, such as the Advanced Photon Source, the Intense Pulsed Neutron Source, the Electron Microscopy Center and the Center for Nanoscale Materials. The AFRL will include Argonne researchers in its Integrated Product Teams and other working groups as appropriate.

Argonne laboratory director Robert Rosner predicted great advances for the nation's security coming from this relationship. "This agreement provides an opportunity to establish a common and consistent path into our respective technology bases," Rosner said. "This collaborative research effort will help meet the needs and requirements of emerging national and homeland security challenges."

Signing the agreement were Rosner and Maj. Gen. Ted F. Bowlds, Commander of the Air Force Research Laboratory at Wright-Patterson Air

Air Force Major Gen. Ted F. Bowlds signs an agreement between Argonne and the Air Force Research Laboratory (AFRL) as Jack Blackhurst, technical advisor, AFRL Plans and Programs Office; Al Sattelberger, Argonne's interim associate laboratory director for applied science and technology; and Sandra Biedron, director of Argonne's Department of Defense Project Office, look on. *Photo by George Joch.*

Force Base, Ohio.

"This MOU with Argonne will enable AFRL and the Air Force to leverage some of the top research scientists and facilities in the country. In turn, we will provide Argonne access to AFRL's finest scientists and resources. We have already begun work with Argonne and already are seeing big payoffs," said Maj. Gen. Bowlds.

The Air Force Research Laboratory is responsible for the Air Force's $1.5 billion science and technology program as well as additional customer funded research and development of $1.8 billion, leading to the discovery, development and integration of affordable technologies for the U.S. Air Force. The lab also oversees basic and applied research as well as advanced technologies that support the Air Force. ■

Sign-up under way for 3-on-3 hoops

Glenn Moonier (APS) tries to block Randy Brown (FMS) during the 2006 3-on-3 basketball tournament. Signup is under way for the 2007 season.

SIGN-UP has begun for the 15th "Three on Three" basketball tournament at Argonne.

The tournament is open to Argonne and U.S. Department of Energy employees of any skill level. Partial teams and individuals are welcome. Games are played at lunchtime at the outdoor basketball court in the 600 area.

Registration deadline is Monday, June 11. The tournament will begin the second week of June.

For more information, rules and scheduling, contact Leon Reed (HEP) at ext. 2-4478. ■

Music club hosts open mic night

THE Argonne Music Club will host an open mic Thursday, May 24, at the Building 617 Lower Level. All are welcome to perform, listen or dance.

Open mics give musicians and vocalists of all genres and skill levels — from novices to virtuosos — a way to perform in a low-pressure, informal setting. Participants don't need to be in a band; there are many opportunities to jam with other musicians and vocalists.

Performances at previous open-mic nights included classical guitar, country, blues, jazz and classic rock. Doors open at 4:30 p.m.; beverages and snacks will be available for purchase. Music will start at 5:30 p.m.

The Argonne Music Club brings together the site's music enthusiasts and musicians to share their interests and hold informal jam sessions and concerts.

The dance floor gets busy during the April 19 open mic sponsored by the Argonne Music Club. The next open mic will be Thursday, May 24. All are invited to play, listen or dance.

For more information, see the club's Web site. ■

www.argonneclub.anl.gov/music

English classes take a summer break

FREE conversational English classes, offered by DEP's Newcomers Assistance Office will take a break for the summer. The class will meet for the last time Thursday, May 31, from 9:30 -11:30 a.m. in Building 223, Room L-119. Classes will reconvene in September.

For more information, contact *newcomers@anl.gov* or call ext. 2-8647. ■

Argonne News is published bi-weekly for Argonne employees by Communications and Public Affairs. ■ Send news items to Editor Dave Jacqué, Building 201, Room 261 (C&PA-201). Voice: ext. 2-5582. Fax: ext. 2-5274. E-mail: *info@anl.gov*. ■

Submit classified ads online at *www.anl.gov/Media_Center/Argonne_News/Classified_Ads* ■ Deadline for all materials is 5 p.m. Friday. ■ Argonne National Laboratory is managed by UChicago Argonne, LLC for the U.S. Department of Energy.

Director's radio interviews reach more than 10 million listeners

A mid-April radio tour by Argonne Director Robert Rosner reached a potential audience of more than 10 million listeners.

The interviews, on "How to Create a Green Economy," aired nationally on CNN Radio, Metro Source National News Center and Good News Broadcast affiliates, and on the WTOP Radio Network in Washington, D.C., and Metro Networks affiliates in Chicago.

The interviews were heard on a total 1,518 stations. Given these stations' average audiences, and accounting for repeated airings, information about Argonne's environmental science and technology programs was heard 10,145,400 times.

The radio tour was coordinated by the laboratory's Communications and Public Affairs Division through the North American Network, Inc., which also conducted the follow-up measurement.

Rosner is scheduled for another radio tour in August.

Short excerpts of the radio interviews in mp3 format are available online. ■

www.anl.gov/Media_Center/Argonne_Today/media/2007/ Rosner_WTOP_cars_1.mp3 *and* **Rosner_WTOP_cars_2.mp3**

EQO employee receives QASR award

ANDREA CIPRIANI

DIANA Grygiel (EQO) was presented with the laboratory's Quality and Safety Recognition (QASR) award for her work to develop and implement an EQO catalog and file system.

Grygiel showed persistence and dedication while working with management to create a catalog and file system for sensitive items inventory in EQO. Grygiel created the file system to manage the inventory process and dedicated her time by volunteering to manage the inventory between verifications.

Grygiel will receive a certificate of recognition and two lunch tickets to the Argonne Guest House or the Building 213 Cafeteria.

The QASR Award recognizes employees' contributions to safety and quality at the laboratory. Nominations for the QASR can be sent to EQO Director Bob McCook at *mccook@anl.gov*. ■

ASSISTANCE PROGRAM TOPIC OF SEMINAR

The CIGNA Behavioral Health EAP will present the one-hour telephone wellness seminar "Manager's Guide to the Employee Assistance Program (EAP)" Wednesday, May 30, at 1 p.m.

Participants should pre-register online at and use confirmation code 8539348.

The seminar is sponsored by the HR/Medical Department Wellness Program. For more information, call ext. 2-2803.

http://ww4.preconf.com/webrsvp

AUTISM 'PUZZLE' TOPIC OF TALK

Suzanne Gray of Right Fit will discuss "The Autism Puzzle" Wednesday, May 23, at noon in Building 201, Rooms 190 A & B. The lecture is free.

Gray will discuss the signs, symptoms, stereotypical behaviors and therapies that can help children with autism, and how fitness plays a role in helping them. The talk is sponsored by the Human Resources Medical Department Wellness Program.

Call ext. 2-2800 to register.

WELLNESS PROGRAM HOSTS PROSTATE SCREENING

The HR/Medical Department Wellness Program will host a Prostate Screening Clinic Wednesday, June 13, from 8 a.m. to 3 p.m. in the Medical Department in Building 201.

Cost is $40. Checks should be made payable to Laurence Levine, M.D. Screenings will be done by appointment only. Call ext. 2-2803 to register.

The screening is an HR/Medical Department Wellness Program.

RUBE GOLDBERG WINNER TO DEMONSTRATE MACHINE

Maine South High School, Park Ridge, the winner of Argonne's Rube Goldberg machine contest for Chicago-area high schools, will receive its first-place trophy and demonstrate its winning machine at noon Thursday, May 24, in the Building 213 Cafeteria. Their machine uses more than 10 steps to take a whole orange, juice it and pour the juice from a pitcher into a cup.

Argonne's Educational Programs and Communications and Public Affairs divisions sponsor the contest in collaboration with Chicago Children's Museum and Rube Goldberg, Inc.

RETIREMENT PLAN INTEREST RATES

Current interest rates for the annuity funds in the staff and non-staff retirement plans are:

VENDOR	RATE	EARNED CONTRIBUTIONS FROM	THROUGH
TIAA Traditional	5.25%	10/01/06 - 05/31/07	02/29/08
TIAA Supplemental	4.50%	10/01/06 – 05/31/07	02/29/08
Prudential Guaranteed (Plans 5017 & 4245)	4.42%	03/31/07 – 06/30/07	06/30/07
Prudential Guaranteed (Plan 7680)	3.75%	03/31/07 – 06/30/07	12/31/08
Prudential Guaranteed (Plan 4643)	3.75%	03/31/07 – 06/30/07	12/31/08
Lincoln National (Old Account)*	3.60%	N/A	06/30/07
Lincoln National (No Load)*	4.00%	N/A	06/30/07

*(*No longer accepting contributions)*

Argonne water in compliance with EPA standards

ARGONNE'S drinking water has very low or undetectable levels of contaminants and poses no known or expected risks to health, according to a report required by the U.S. Environmental Protection Agency (EPA).

The U.S. EPA requires that water system users receive an annual Consumer Confidence Report listing detailed data on contaminants. The report contains details on the drinking water source, the level of detected contaminants and compliance with drinking water regulations.

Argonne gets its drinking water from the DuPage Water Commission, which gets Lake Michigan water from the City of Chicago's Department of Water.

Chicago Water Department monitoring information for 2006 is summarized in the chart below. EPA-identified contaminants are monitored and analyzed using methods specified by the agency. The chart shows results for constituents that were present in high enough amounts to be detected; regulatory limits are included for comparison. All other monitored constituents were below detection limits.

All monitored concentrations were less than the applicable regulation-based maximum contaminant levels, which indicates the drinking water contaminant levels show no known or expected risk to health.

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. Their presence does not necessarily pose a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Those with compromised immune systems — such as those undergoing chemotherapy, persons who have undergone organ transplants, people with HIV, AIDS, or other immune system disorders, some elderly and infants — can be at risk from infections.

For more information, call John Baum (PFS-US) at ext. 2-8116. Questions on the analytical data should be directed to Norbert Golchert (EQO), at ext. 2-3912.

For information about EPA guidelines on ways to lessen the risk of infection from microbial contaminants, and information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791. ■

CONTAMINANT	UNITS	MCLG	MCL	LEVEL FOUND
Turbidity	%<0.5 NTU	NA	TT	100%*
Turbidity	NTU	NA	TT=1	0.15
Barium	ppm	2	2	0.020
Nitrate (as Nitrogen)	ppm	10	10	0.34
Nitrate and Nitrite	ppm	10	10	0.35
Total Trihalomethanes	ppb	NA	80	16.0
Haloacetic Acids	ppb	NA	60	8.9
Sulfate	ppm	NA	NA	28.1

* 100% means all samples met standards

KEY — NTU: Nephelometric Turbidity Unit. ppm: parts per million. ppb: parts per billion. NA: not applicable. Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as is feasible using the best available treatment technology.

Book donations to support Little City

ARGONNE employees can donate new or used books to help the Argonne Combined Appeal support the Little City Foundation, which provides services and opportunities for children and adults with intellectual and developmental disabilities.

Books can be dropped off at boxes in the Building 201 Lobby and the Building 213 Cafeteria.

The program cannot accept:

- Encyclopedias that are more than 10 years old
- Law books
- Magazines (except food, art, architecture or collectible magazines)
- Reader's Digest condensed books
- Library books
- Romance novels
- Damaged books

Little City's book sale will be held June 9-17 at Old Orchard Shopping Center.

For more information, contact Myra Rossi (OCF-PRO) at ext. 2-4525. ■

OPSEC can help protect the home

SUMMER is fast approaching, and many of us will be taking vacations and leaving our homes unattended. When getting ready to go on a trip, the following actions are suggested to help prevent break-ins and burglaries:

- Stop delivery of newspapers so they do not pile up outside.
- Ask a neighbor or friend to pick up mail so the mailbox does not fill up.
- Connect porch lights and inside lights to a timer to make it look like someone is home.
- Leave a vehicle parked in the driveway.
- Connect a radio or TV to a timer so that it comes on at various times.
- Make arrangements to have the lawn mowed.

For more information about Argonne's OPSEC Program, call Pat Berglund (SCD) at ext. 2-2946. ■

Varotto featured on Web site for Hispanic S&T professionals

ARGONNE'S Mariana Varotto (AES) was featured as the Hispanic Engineer National Achievement Awards Conference (HENAAC) "Role Model of the Week" at *www.henaac.org*.

This weekly feature on the HENAAC Web site pays tribute to Hispanic engineers, scientists and technology professionals from among national corporations, academic institutions, government entities and the military. The feature includes personal stories about talented and innovative Hispanic people at America's top organizations.

Varotto is an assistant electrical engineer in the Controls Group in the APS Engineering and Support Division. She is responsible for dozens of applications and is frequently sought out for expeditious and accurate response to customer requests.

"The attribute which most compelled me to nominate Mariana for this award was her ability to learn about a new technology or system independently and quickly," said Control Group Leader Ned Arnold. "Mariana is often asked to support projects with which she is not familiar. In addition to her technical capabilities, Mariana has demonstrated a keen interest in promoting engineering and science careers to young women through her involvement in laboratory outreach programs." ■

Varotto

SERVICE AWARDS FOR MAY

35 YEARS
Catherine Carbaugh (CHM), Romesh Kumar (CMT)

30 YEARS
James Bailey (NE), Teng Khoo (PHY), Claude Reed (NE), Diana Thompson (LTD)

20 YEARS
Jeffrey Eastman (MSD), Gary Griffin (EQO), Joe Michael (CHM), Jacques Mitrani (DIS), Susan Rhodes (EQO), Gregory Robinson (DIS)

15 YEARS
Dariusz Blachowicz (DIS), Mark Donnelly (BIO), Joseph Hirsch (EQO), Matthew Lagessie (ES), Stephen Milton (ASD), Raymond Osborn (MSD), Johnny Reed (EQO), Victor Steed (CHM), William Toter (TSD), Balakrishna Venigalla (EQO), Zbigniew Zych (TSD)

10 YEARS
Satish Balay (MCS), Trudy Bolin (XSD), Peter Lee (XSD), Lois Curfman McInnes (MCS), Sarvjit Shastri (XSD), Rajeev Thakur (MCS), JoAnne Wold (AES)

5 YEARS
Sergei Chekanov (HEP), John Downs (TSD), Mark Langguth (LEG), Xiao-Min Lin (CNM), Troy Lutes (XSD), Jennifer Mawdsley (CMT), Sergey Stepanov (BIO)

Ar'Gang

NEW ARRIVALS
A boy, Zachary Alan, born Feb. 13 to Mark and Janell Piechocinski (OCF-PRO); a girl, Mckenzie Faylinn, born March 30 to Nick (CIS) and Allison (HR) Stoops; a boy, Nick, born Feb. 14 to Sasan Bakhtiari (NE) and his wife; a boy, Ammon Robert, born February 17 to Vera and J. David Carter (CMT).

PROUD GRANDPARENTS: granddaughter, Kylee Rae, born March 8 to Karen Neumann (NOD); grandsons, Jacob Allan born Sept. 15 and Zachary Allen born Feb. 13, to Carol Wesolowski (TSD); grandson, Matthew Owen, born Jan. 25 to Harvey Drucker (AST); granddaughter, Katharine Medley, born April 7 to Jim Snelgrove (NE); a granddaughter, Reyna Katherine, born March 3 to Sharon and Vic Maroni (CMT); a granddaughter, Eleanor Grace Donato born March 20 to first-time grandparents Kathleen and Jim Miller (CMT).

WEDDINGS/ENGAGEMENTS
Congratulations to Bobby Herrera (EVS) on his engagement to Sarah Moffitt.

GET WELL
Get well to Terry Allocco, Judy Frantini; Bruck Huckfeldt and Anthony Sendra (all of FMS-CU); Cathy Derry (OCF-PRO); Louise Kickels (TSD); Sue Benson and Patria Leath (both of EVS).

WELCOME
FMS-CU welcomes Basil Spence, Bridgitte Bullock and Eric Koprowski. FMS-BM welcomes Paul Hodges and Douglas Tapp. TSD welcomes Kimberly Johnson. OCF-PRO welcomes Marlene Nowotarski and Eric Schmike. CIS-NTS welcomes Ann Montefinese. EVS welcomes Christina Colantoni and Leroy Walston.

TRANSFERS
Good luck to Marlene Nowatarski who transferred from SUF-PA to OCF.

FAREWELL
Good luck to Joon Kim and Bruno Orosz (both of FMS-CU), Mary Coglianese, Mary Nunez, Susan Pepalis, James Sleeth (all from TSD), and Jayme Allocco (OCF-PRO) who have left the laboratory.

PROMOTIONS
Promotions reported to Ar'Gang this month include: Angela Monczynski (TSD) on her promotion to administrative secretary; Romas Senkevicius (TSD) on his promotion to manager of Central Shops; Carol Wesolowski (TSD) on her promotion to laboratory records coordinator; Valerie Gaines (TSD) on her promotion to staff assistant; Eric Bond (FMS-CU) on his promotion to custodial foreman; Marlene Nowotarski (OCF) on her promotion to assistant contract specialist.

CONDOLENCES
Condolences to Edwina Langenberg (EQO-TR) on the death of her mother-in-law; Emily Wilson (EQO) on the death of her son; Michael Reedy (FMS-CU) on the death of his grandfather; Bruce Ende (FMS-CU) on the death of his mother; Georgianne Lamb (FMS-CU) on the death of her father; Rodney Fletcher (FMS-BM) on the death of his wife; Greg Ktistou (TSD) on the death of his father-in-law; Pat Hollopeter (TSD) on the death of her mother; Marita Moniger (TSD) on the death of her significant other; Barbara Salbego (TSD) on the death of her son; Laurie Culbert (TSD) on the death of her mother; Robert Conley (TSD) on the death of his mother-in-law; Phil Pfeiffer (NE) on the death of his father; Greg Wojciechowski (LEG) on the death of his father-in-law; Barney Nashold (EVS) on the death of his brother; John Gasper (EVS) on the death of his mother-in-law.

CONTRIBUTORS
Thanks to this issue's contributors: Nan Cantwell (FMS-BM), Brea Grischkat (NE), Diana Grygiel (EQO), Cathy Nelson (TSD), Denise Voss (AST), Lori Greenwood (EVS), Kathy Fitzgerald (NOD); Georgianne Lamb (FMS-CU), Sally Peters (OCF), Denice DiGiacomo (CIS) Faith Ruppert (CMT), and Sharon Giblin (LEG).

Classified Ads

MISCELLANEOUS

MISCELLANEOUS — Dorm refrigerator, white, 34" x19". $50. Missile Element pool filter, 1.5hp, 2-speed motor, excellent condition. $200. Linda DeVito, (630) 918-4979.

MISCELLANEOUS — Case riding lawn mower, rear engine, 8hp, 32" cutting deck, excellent condition. $300. Snapper self-propelled mower, walk behind, 5 hp. $100. 4 truck tires, General AmeriTrac, P255-70R 16, good condition. $100. Ron Vironda, (815) 722-6057.

MISCELLANEOUS — Children's oak bedroom set, headboard, night stand, excellent condition. $75. Sealy twin mattress, box spring. $35. Coffee table, tan, Formica, like new. $35. Alan Handwerker, (847) 541-8699.

GARAGE SALE — Long Bow Creek Subdivision, Farrell and Division Sts., Lockport, Thursday-Saturday, May 17-19, 9 a.m. to 2 p.m. Dawn Ferrazzi, (815) 836-8359.

TV/DVD PLAYER — 25" RCA TV, Daewoo DVD player, DVG-9200N. $100. Nina Rohringer, (312) 402-6718.

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TYPEWRITER/WORD PROCESSOR — Brother WP-760D, electronic, works, manuals, disks, ribbons available, excellent condition. $25 o.b.o. Albert Fischer, (708) 246-4389.

YARD SALE — 16628 Sprangler, Plainfield, May 24-16, 9 a.m. to 3 p.m., paintings, toys, collectibles-Hallmark-Barbie, misc. Fran Perri, (815) 439-1671.

ANTIQUES — Dresser, vanity, mirror, hardwood, no veneers. $400. English wardrobe, 1870's, cherry wood, beveled mirrored doors, 7'x5'. $1,500 o.b.o. Art deco end tables, waterfall design, 1930's. $40 ea. Christopher Oldanie, (708) 226-1866.

MISCELLANEOUS — Men's left-hand golf club set, Cougar "Diablo" bag, head cover, Nike NDS TruTemper Uniflex irons, Titan Challenger putter, 3 drivers, excellent condition. $160 o.b.o. Wilmar 4,000 lb. heavy duty automotive engine crane, unit weight is 200 lbs., collapsible for compact storage, excellent condition. $200. Rory Simpson, (773) 562-4210.

MISCELLANEOUS — 2, Simmons cribs, mattresses, like new. $100 ea. set. Baby cradle. $15. Wah-Keat Lee, (708) 445-7391.

MISCELLANEOUS — Grumman canoe, 17', double-ender, shallow-draft keel, paddles, *www.marathonboat.com/canoes.htm*. Tube tester-accurate instrument co., model 151, seven-socket emission type vacuum tube tester, operating instruction manual, circa 1961. $10. Don Timmerman, (815) 478-3431.

HOVEROUND — Electrical. $300 o.b.o. Leslie Nicols, (708) 254-9805.

DRYER — Maytag Performa, gas, oversize capacity plus, quiet series, works great. $75. Jeff Ullian, (815) 953-9607.

HEDGE CUTTER — Black and Decker, electric, very good condition. $20. Rose Lee Pausche, (630) 739-0952.

GOLF CLUBS — Set, bag. $20. Al Svirmickas, (708) 633-0545.

AUTOMOBILES

1995 FORD — Crown Victoria, 161K miles, well equipped, good condition. $2,100 o.b.o. Hank Dowgwillo, (630) 469-2426.

2001 NISSAN — XTerra SE, green, 93K miles, 6-CD, 3500 lb. towing, part-time 4WD, removable dog fence, original owner. $8,800. Robert Scott, (630) 495-2186.

1997 HONDA — Civic EX, 4 door, auto, sunroof, 100K miles, excellent condition. $3,800. Srinivas Krishnagopal, (630) 737-0151.

1999 BMW — 323i, excellent condition, new brakes/tires, black, leather, 62K miles, 6-CD, sunroof with tilt. $12,500 o.b.o. Ayman Said, (312) 953-2847.

1998 TOYOTA — Camry, 2.2L, 4 cyl., 107K miles, auto, PS, ABS, good condition, 30 mpg highway. $4,200. Mark Jensen, (630) 663-1646.

1999 PACE ARROW — Motor home, 36', Ford V10 engine, heavy duty frame, 2 air conditioners, 2 furnaces, queen bed, other extras, well maintained, 18K miles. $35,000 o.b.o. Tom Barsz, (630) 971-2567.

HOUSING

HOUSE/SALE/RENT — Woodridge, split level, 3 bedroom, 2 bath, completely renovated, immediate availability. Tom Ewing, (630) 985-8472.

ROOM/SUBLEASE — 1 bedroom, short-term visitor. $200 wk. or $700 mo. of June. Mashairo Notani, (630) 378-9361.

ROOM/RENT — Room in house, furnished, private bath, laundry facility. $400 plus utilities. Yuncheng Zhonh, (630) 606-9052.

CONDO/SALE — Tinley Park, 2 bedroom, 2 bath, wooded area on lake, vaulted ceiling, fireplace. $167,900. Jim Podraza, (708) 212-5250.

HOUSE/SHARE — Furnished room, private bath, utilities included. $500 mo. Harry Tong, (630) 607-2225.

WANTED

USED CAR — 1996 or newer, less than 150K miles, below $5,000. Lin Wang, (630) 915-9866.

HOUSING — Accommodations in Westmont/Darien/Willowbrook area, needed for June 1st. Siva Sai Krishna Dasa, (312) 208-9655.

HOUSING — Female grad student, May 26 – August 3, small apartment or room with light cooking facilities. Jim Woodring, (630) 983-5373.

PUPPY — Red miniature dachshund. Nancy Sanchez, (815) 886-4332.

CHILD CARE — My home Monday-Wednesday, 9 and 5 year old girls, salary negotiable. Julie McGillen, (815) 715-8130.

TO BE GIVEN AWAY

MISCELLANEOUS — Large wooden utility cable spool, 48" x29", needs recovered. Jim Woodring, (630) 983-5373.

PING PONG TABLE — Fair condition. Jay Johnson, (630) 378-1248.